

REMARKS

The Final Office Action mailed April 16, 2004 has been received and carefully noted. The amendments herein and the following remarks are submitted as a full and complete response thereto.

A "Petition for Extension of Time" for extending the due date for responding to the Office Action by two months and a credit card payment form to cover the fee payment (\$420.00) for the extension are filed with this Preliminary Amendment. The credit card payment form additionally covers the fee payment (\$720.00) for the Request for Continued Examination (RCE) filed concurrently herewith and the fee payment (\$86.00) for the addition of one independent claim in excess of three under 37 C.F.R. § 1.16(b). Authorization is granted to charge counsel's Deposit Account No. 01-2300, referencing **Attorney Docket No. 108391-00009**, for any additional fees necessary for entry of this Preliminary Amendment as well as the RCE filed concurrently herewith.

As a preliminary matter, Applicant appreciates the indication that claims 1, 3, 4 and 6-14 are allowed.

Claims 2, 5 and 15 have been amended and independent claim 16 has been newly added. Applicant submits that the amendments made herein are fully supported in the Specification and the drawings, as originally filed, and therefore no new matter has been introduced. Accordingly, claims 1-16 are pending in the present application and are respectfully submitted for reconsideration.

Independent claims 2, 5 and 15 were finally rejected under 35 U.S.C. § 102(b) as being anticipated by Applicant's admitted prior art Figs. 1-3B. In making the rejections, the Examiner

noted that while the "prior art does not teach the amplification steps as recited in claims 2 and 5 amplify a signal after orthogonal detection ... such limitation is not positively recited in the claims." Claims 2, 5 and 15 have been amended. The rejections are respectfully traversed and reconsideration is requested.

It is respectfully submitted that the prior art Figs. 1-3B neither discloses nor suggests the demodulation method and apparatus as claimed in the present invention. Specifically, in the prior art, comparison result of signals outputted from a timing reproduction circuit is fed back to an amplifier disposed at a stage before amplifying a PSK modulated signal before orthogonal detection. However, in the present invention, I channel signal and Q channel signal detected by orthogonal detection are compared before being inputted into a timing reproduction unit or timing reproduction circuit, and comparison result is fed back to an amplifier which amplifies the I channel signal and the Q channel signal.

Based upon the above, it is accordingly submitted that independent claims 2, 5 and 15 are patentable and in allowable condition based upon the prior art Figs. 1-3B not disclosing or suggesting the demodulation method and apparatus as claimed herein.

Newly added independent claim 16 recites a demodulation method comprising an orthogonal detection step of detecting an I channel signal and a Q channel signal from a PSK modulated signal; an amplification step of amplifying either the I channel signal or the Q channel signal; an amplitude difference comparison step of calculating a difference between an amplified I channel signal and the Q channel signal or between the I channel signal and an amplified Q channel signal; and an extracting step of extracting a signal at timing in synchronization with a base band signal based on either the amplified I channel signal and the Q channel signal or the I

channel signal and the amplified Q channel signal, wherein the amplification step uses a gain difference calculated by the amplitude difference comparison step.

Support for the entry of new independent claim 16 may be found in the Specification at page 31, l. 22 – page 34, l. 22. For the same reasons as set forth above with respect to independent claim 15, applicant submits that the prior art also does not disclose or suggest the method as claimed in independent claim 16. This independent claim is therefore patentable and in condition for allowance. Entry of new independent claim 16 is respectfully requested.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact the Applicant's undersigned counsel at the telephone number, indicated below, to arrange for an interview to expedite the disposition of this application.

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Respectfully submitted,



Marylee Jenkins  
Registration No. 37,645  
Attorney for Applicant

Customer No. 004372  
ARENT FOX PLLC  
1675 Broadway  
New York, NY 10019  
Tel: (212) 484-3928  
Fax: (212) 484-3990

MLJ/my